

VAP SPIN

GLASS CAPSULES



FEATURES

- Totally encapsulated system, excellent for "one-hole to one-capsule" application.
- Stress-free anchoring, suitable for close anchoring spacing and edge distance.
- Fast curing and can be used in horizontal fixings.
- Excellent resistance to dynamic loading.
- Can be apply in dry and wet concrete without loss of performance.
- High load and high efficient in series application.
- ETA approval for use in non-cracked concrete.

APPLICATIONS

- High strength anchoring where vibration is a consideration.
- All types of façade and curtain wall installations.
- Hold down anchoring for machineries, fans and motors.
- Anchoring for steel structures and gondolas.
- Balustrades, handrails, safety barriers installations.
- Recommended for architectural or GFRC panel fixings.

SHELF LIFE

- Shelf life is 12 months with the capsules kept in cool dry conditions (+5°C to +25°C) out of direct sunlight.

RANGE OF CONCRETE QUALITY

C20/25 ~ C50/60

RANGE OF LOADING

5.1 kN ~ 80.6 kN (SWL)



Medium loads

HOLE ORIENTATION



BASE MATERIALS



Concrete



Concrete block solid stone



VA RODS AVAILABILITY




APPROVAL GOVERNING BODIES



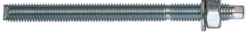

► ORDERING DETAILS

PRODUCT DESCRIPTION	PACKING CONTENT (PCs.)	PRODUCT PART NO.	
Hole Blower	1	HCP	
Hole Cleaning Brush			
Cleaning Brush - 10mm	1	CB10	
Cleaning Brush - 12mm	1	CB12	
Cleaning Brush - 18mm	1	CB18	
Cleaning Brush - 28mm	1	CB28	



VAP SPIN GLASS CAPSULE

PRODUCT DESCRIPTION	CAPSULE DIAMETER (mm)	CAPSULE VOLUME (ml)	PACKING CONTENT (PCs.)	PRODUCT PART NO.	
M8 x 80mm	9	4.0	10	VAP8	
M10 x 80mm	11	5.5	10	VAP10	
M12 x 95mm	13	9.0	10	VAP12	
M16 x 95mm	17	15.8	10	VAP16	
M20 x 175mm	22	53.0	6	VAP20	
M24 x 210mm	24	76.0	6	VAP24	

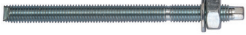

VA CHEMICAL STUD RODS - STEEL CLASS 5.8 ZINC GALVANISED

PRODUCT DESCRIPTION	FIXTURE HOLE DIAMETER (mm)	MAX. FIXTURE THICKNESS (mm)	PACKING CONTENT (PCs.)	PRODUCT PART NO.	
M8 x 110mm	9	15	10	VA8110	 
M10 x 130mm	12	20	10	VA10130	
M12 x 160mm	14	30	10	VA12160	
M16 x 190mm	18	40	10	VA16190	
M20 x 260mm	22	50	6	VA20260	
M24 x 300mm	28	55	6	VA24300	

VA CHEMICAL STUD RODS - STEEL CLASS 5.8 HOT-DIPPED GALVANISED

PRODUCT DESCRIPTION	FIXTURE HOLE DIAMETER (mm)	MAX. FIXTURE THICKNESS (mm)	PACKING CONTENT (PCs.)	PRODUCT PART NO.	
M8 x 110mm	9	15	10	VA8110GH	 
M10 x 130mm	12	20	10	VA10130GH	
M12 x 160mm	14	30	10	VA12160GH	
M16 x 190mm	18	40	10	VA16190GH	
M20 x 260mm	22	50	6	VA20260GH	
M24 x 300mm	28	55	6	VA24300GH	

VAH CHEMICAL STUD RODS - STEEL CLASS 8.8 ZINC GALVANISED

PRODUCT DESCRIPTION	FIXTURE HOLE DIAMETER (mm)	MAX. FIXTURE THICKNESS (mm)	PACKING CONTENT (PCs.)	PRODUCT PART NO.	
M8 x 110mm	9	15	10	VAH8110	 
M10 x 130mm	12	20	10	VAH10130	
M12 x 160mm	14	30	10	VAH12160	
M16 x 190mm	18	40	10	VAH16190	
M20 x 260mm	22	50	6	VAH20260	
M24 x 300mm	28	55	6	VAH24300	

VAH CHEMICAL STUD RODS - STEEL CLASS 8.8 HOT-DIPPED GALVANISED

PRODUCT DESCRIPTION	FIXTURE HOLE DIAMETER (mm)	MAX. FIXTURE THICKNESS (mm)	PACKING CONTENT (PCs.)	PRODUCT PART NO.
M8 x 110mm	9	15	10	VAH8110GH
M10 x 130mm	12	20	10	VAH10130GH
M12 x 160mm	14	30	10	VAH12160GH
M16 x 190mm	18	40	10	VAH16190GH
M20 x 260mm	22	50	6	VAH20260GH
M24 x 300mm	28	55	6	VAH24300GH



G

VAR CHEMICAL STUD RODS - STAINLESS STEEL CLASS 304 (A2)

PRODUCT DESCRIPTION	FIXTURE HOLE DIAMETER (mm)	MAX. FIXTURE THICKNESS (mm)	PACKING CONTENT (PCs.)	PRODUCT PART NO.
M8 x 110mm	9	15	10	VAR8110
M10 x 130mm	12	20	10	VAR10130
M12 x 160mm	14	30	10	VAR12160
M16 x 190mm	18	40	10	VAR16190
M20 x 260mm	22	50	6	VAR20260
M24 x 300mm	28	55	6	VAR24300



A2
INOX

VAS CHEMICAL STUD RODS - STAINLESS STEEL CLASS 316 (A4)

PRODUCT DESCRIPTION	FIXTURE HOLE DIAMETER (mm)	MAX. FIXTURE THICKNESS (mm)	PACKING CONTENT (PCs.)	PRODUCT PART NO.
M8 x 110mm	9	15	10	VAS8110
M10 x 130mm	12	20	10	VAS10130
M12 x 160mm	14	30	10	VAS12160
M16 x 190mm	18	40	10	VAS16190
M20 x 260mm	22	50	6	VAS20260
M24 x 300mm	28	55	6	VAS24300



A4
INOX

* Stud rod diameter M27 and above are made-to-order or on indent basis.

► INSTALLATION PERIMETER & LOADING DATA

VAP WITH VA (STEEL CLASS 5.8) RODS - ZINC GALVANISED & HOT DIPPED GALVANISED

ANCHOR SIZE	HOLE DIAMETER (mm)	ANCHORAGE DEPTH (mm)	MINIMUM CONCRETE THICKNESS (mm)	TIGHTENING TORQUE (Nm)	RECOMMENDED SPACING & EDGE DISTANCE TO FULL LOAD (mm)		ABSOLUTE MINIMUM SPACING & EDGE DISTANCE (mm)		RECOMMENDED LOAD ¹ (kN)	
					TENSION	SHEAR	TENSION	SHEAR	TENSION	SHEAR
M8	10	80	110	10	160	80	40	40	7.9	5.1
M10	12	90	120	20	180	90	45	45	11.9	8.0
M12	14	110	140	40	220	110	55	55	15.9	12.0
M16	18	125	160	80	250	125	65	65	19.8	22.3
M20	25	170	220	120	350	175	85	85	29.8	34.9
M24	28	210	265	180	420	210	105	105	35.7	50.3

¹ Loading based on non-cracked concrete, $f_{ck,cube} = 25 \text{ N/mm}^2$ (C20/25).

VAP WITH VAH (STEEL CLASS 8.8) RODS - ZINC GALVANISED & HOT DIPPED GALVANISED

ANCHOR SIZE	HOLE DIAMETER (mm)	ANCHORAGE DEPTH (mm)	MINIMUM CONCRETE THICKNESS (mm)	TIGHTENING TORQUE (Nm)	RECOMMENDED SPACING & EDGE DISTANCE TO FULL LOAD (mm)		ABSOLUTE MINIMUM SPACING & EDGE DISTANCE (mm)		RECOMMENDED LOAD ¹ (kN)	
					TENSION	SHEAR	TENSION	SHEAR	TENSION	SHEAR
M8	10	80	110	10	160	80	40	40	7.9	8.6
M10	12	90	120	20	180	90	45	45	11.9	13.1
M12	14	110	140	40	220	110	55	55	15.9	18.9
M16	18	125	160	80	250	125	65	65	19.8	36.0
M20	25	170	220	120	350	175	85	85	29.8	56.0
M24	28	210	265	180	420	210	105	105	35.7	80.6

¹ Loading based on non-cracked concrete, $f_{ck,cube} = 25 \text{ N/mm}^2$ (C20/25).

VAP WITH VAR & VAS (STAINLESS STEEL) RODS - CLASS 304 (A2) & CLASS 316 (A4)

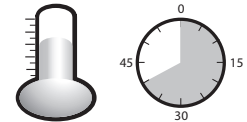
ANCHOR SIZE	HOLE DIAMETER (mm)	ANCHORAGE DEPTH (mm)	MINIMUM CONCRETE THICKNESS (mm)	TIGHTENING TORQUE (Nm)	RECOMMENDED SPACING & EDGE DISTANCE TO FULL LOAD (mm)		ABSOLUTE MINIMUM SPACING & EDGE DISTANCE (mm)		RECOMMENDED LOAD ¹ (kN)	
					TENSION	SHEAR	TENSION	SHEAR	TENSION	SHEAR
M8	10	80	110	10	160	80	40	40	7.9	6.0
M10	12	90	120	20	180	90	45	45	11.9	9.2
M12	14	110	140	40	220	110	55	55	15.9	13.3
M16	18	125	160	80	250	125	65	65	19.8	25.2
M20	25	170	220	120	350	175	85	85	29.8	39.4
M24	28	210	265	180	420	210	105	105	35.7	56.8

¹ Loading based on non-cracked concrete, $f_{ck,cube} = 25 \text{ N/mm}^2$ (C20/25).

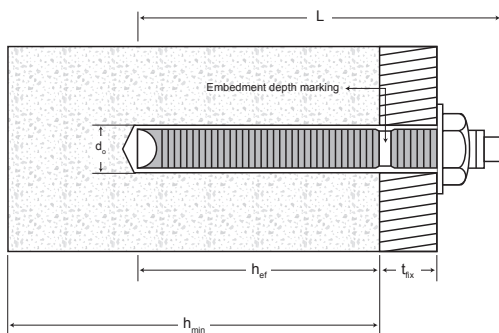
► GEL AND CURING TIME

BASE MATERIAL TEMPERATURE $T_{\text{base material}} (\text{°C})$	CURE TIME IN DRY CONCRETE $t_{\text{cure, dry}} (\text{mins})$	CURE TIME IN WET CONCRETE $t_{\text{cure, wet}} (\text{mins})$
$-5 \leq T_{\text{base material}} < +5$	300	600
$+5 \leq T_{\text{base material}} < +20$	60	120
$+20 \leq T_{\text{base material}} < +30$	20	40
+30 & above	10	20

Note: If during the installation of the rod the temperature drop below -6°C or rises above 60°C , please contact our Engineers for the proper procedures.



► SETTING DIAGRAM



► INSTALLATION PROCEDURE

